

REMARKS

The claims were objected to for particularity. Applicant requests reconsideration. The claims have been correspondingly amended.

The terms source, proximal, distal, and destination are terms used consistently with the specification. These terms could be replaced with first, second, third, fourth, etc., but would lose reference to each other in the normal understanding of the claims.

A brief example can be as claimed in claim 2. The source can be a browser client as a source IPA. The source URL identifier can be an exact URL of an originating web server originally storing the sought after web content data. The proximal cache at the proximal IPA is typically proximal to the source, that is, the client. The distal web cache at a distal IPA is a web cache that is very remote from the client and the proximal web cache. The destination at a destination IPA is a web cache interposed between the proximal cache and the distal cache. The more adjacent destination is immediate to the proximal cache, and, hence, the immediate destination of the source URL, whereas, the distal web cache is more remote from the proximal cache, and, hence, the remote storage of the sought after web content data. As such, the use of the terms, source, proximal, destination, and distal are used to show relative length in hop connections and the topography relationship between the requesting source and the very remote distal web cache storing the sought after web content data. Applicant asserts that

1 the use of source, proximal, destination, and distal are preferred
2 terms over merely first, second, third, and fourth.

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4 Claim 1 was rejected as anticipated by Call. Claims 9 and 12
5 were rejected as unpatentable over Call. Claims 1-15 were rejected
6 as unpatentable over Nazem. Claims 6 and 13-15 were rejected as
7 being unpatentable over Nazem in view of Rune.

8
9 The invention is directed to using a proximal web cache at a
10 proximal IPA as a relay to distal web caches storing sought after
11 web content data. To perfect this relay function, the proximal web
12 cache uses cross-referenced data as a forwarding table that
13 includes the distal URL and distal IPA information. The cross-
14 referenced URL-to-IPA forwarding table assists the proximal cache
15 at the proximal IPA to locate sought after web content data that
16 can be stored in a distal cache in a network of web caches. The
17 benefits of associating the exact URL to a distal IPA enables a
18 proximal cache to have a self-contained content-based forwarding
19 table at the proximal IPA for expedited retrieval of web content
20 data, through the intermediary destination cache located at a
21 respective destination IPA.

22
23 The present invention is new as a forwarding table that
24 associates URLs to distal IPAs for accessing web content data from
25 the nearest minimum hop URL data that is stored in a web cache. The
26 present invention does not merely forward or relay IPAs from a
27 forwarding table for forwarding discrete packets, but rather
28 forwards and relays the URL requests to near and far web caches and

1 servers. Hence, the present invention is characterized by
2 associating URLs to distal IPAs in a forwarding-routing table in a
3 proximal web cache using URL requests that are for retrieving web
4 content data from a distal but minimum hop web cache or a distal
5 URL web server identified by both the IPA and URL. As such, and
6 using the present invention, a web content data request can be
7 sent, through table association, to a minimum hop web cache for
8 fast access, rather than to a far remote distal web server. By
9 using the invention, a browser directly communicates with a
10 proximal web cache to access web content data without a DNS
11 request.

12
13 As can be shown, claim 1 is directed to: 1) sending a URL that
14 specifies sought after web content data from a source at a source
15 IPA to a proximal cache; that then 2) matches the URL to a distal
16 URL; and then, 3) cross-references the distal URL to a distal IPA;
17 and then, 4) communicates the URL and the source IPA to the distal
18 IPA, so that the distal IPA can then communicate the sought after
19 web content data to the requesting source. This retrieval of
20 sought after web content data is in effect a relay operation from
21 the client source through a proximal cache matching an exact URL to
22 a distal cache. This relay is perfect by transmitting the exact URL
23 to the distal web cache at the distal IPA.

24
25 Call, Nazem, or Rune do not teach this relay function
26 necessary in a network of web caches. Call teaches (Col 8 line 22)
27 a redirection operation wherein a cross-referencing resource forms
28 a new URL that is transmitted back to the browser client at the

1 browser client's source IPA. Upon receiving the new URL, the
2 browser transmits a new web request to the new web server. This
3 redirection operation is distinct from the relay of the present
4 invention. Call redirection operation places the transmission and
5 retransmission responsibility on the browser client, whereas, the
6 present invention does not, but forwards the request to a distal
7 cache that would transmit the sought after web content data back to
8 the client.

9
10 Nazem is simply unrelated. Nazem teaches neither Call's
11 redirection or the relay of the present invention. Nazem teaches a
12 method for combining web content data from multiple and disparate
13 sources into a single web page where data sources are selected by a
14 user template. Nazem does not create a network of cooperative web
15 caches from which a browser client's sought after web content data
16 is retrieved. The cited references do not teach claimed process
17 steps at a proximal IPA for retrieving sought after web content
18 data from a distal web cache. Allowance of the claims is requested.

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20
21 Respectfully Submitted

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